

SELECTIVE SHIELD/MATERIAL FLOW MECHANISM

ABSTRACT

5 An apparatus and method for plating a workpiece. The
apparatus comprises, generally, an anode, a cathode, and a
selective anode shield/material flow assembly. In use, both
the anode and the cathode are immersed in a solution, and
the cathode is used to support the workpiece. During an
10 electroplating process, the anode and the cathode generate
an electric field emanating from the anode towards the
cathode, to generate a corresponding current to deposit an
electroplating material on the workpiece. The selective
shield/material flow assembly is located between the anode
15 and the cathode, and forms a multitude of adjustable
openings. These opening have sizes that are adjustable
during the electroplating process for selectively and
controllably adjusting the amount of electric flux passing
through the selective shield/material flow assembly and the
20 distribution of the electroplating material on the
workpiece. The selective shield/material flow assembly can
also be used with an electroless plating system. At least
one selective shield material flow mechanism is used in a
selective shield material flow assembly.